

THE FOURTH DIMENSION.

BY PAUL ROBERTS SHIPMAN.

IN the New York *Sun's* weekly column of "Questions and Answers," widely recognized as a center of curious or forgotten lore and certainly supplied by one having not only a well-trained intellect but that flavor of culture which consists in knowing where to look for what one seeks to find, I note the following question and answer.

"Kindly inform me what the fourth dimension really is. MARY C. QUINN.

"It is a property of space quite beyond the sense perception of men, an abstraction derived from the results obtained by well comprehended processes in the higher mathematics. Certain things happen in these computations which are in no way susceptible of explanation in a space restricted to the three tea chest dimensions of length, breadth and thickness. From a sufficiently considerable number of such phenomena the theory has been evolved that space has a fourth dimension. In the common progress of mathematical study the need of such transcendental dimension first arises in the specific case of that plane section of the cone designated the hyperbola. At an infinite as well as in all intermediate distances of that curve from the point of origin the line is continuous in a given direction; if now to infinity a single unit be added the curve comes into view in the diametrically opposite direction. In this elementary demonstration the fourth spatial dimension appears to suggest sphericity; but this is only the beginning. It is still under careful examination by mathematicians. Sciologists at one time seized upon the idea in explanation of thought transference, psychic phenomena and the whole hoodoo range in general."

It is perhaps allowable to accept this as the up-to-date answer to the question. It is at any rate safe to say, I think, that no answer

